

I. Amendments

A. In the Claims

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of the Claims

Please amend claim 24, and cancel claims 28-30, as follows:

1-23. (previously cancelled)

24. (currently amended) A hermetically sealed integrated circuit package, comprising:

an integrated circuit comprising a substrate having an upper surface, a perimeter being disposed upon the upper surface and defining a hermetically sealed portion therewithin, at least one circuit element being disposed within the hermetically sealed portion;

a hermetic cap comprising a top member and a gasket, the cap being configured to cover the hermetically sealed portion and form a hermetically sealed cavity thereover, the gasket comprising opposing first inner and first outer vertical sidewalls depending downwardly from the cap, the sidewalls terminating in and being separated by a bottom edge;

a bonding agent disposed between and engaging the substrate and the bottom edge to form a hermetic seal between the cap and the substrate and thereby hermetically seal the cavity, the bonding agent further comprising opposing second inner and second outer sidewalls

disposed between the substrate and the gasket, the second inner sidewall being located within the hermetically sealed portion, the second outer sidewall being located outside the hermetically sealed portion, and

a caulking agent disposed along and engaging at least portions of at least one of the second inner sidewall and the second outer sidewall such that the caulking agent extends between and covers substantially all of and is directly in contact with at least one of the second inner sidewall and the second outer sidewall, the caulking agent extending between the substrate and the gasket and ~~the caulking agent~~ and being configured to seal the cavity and improve improving the hermeticity of the hermetic seal formed by the bonding agent.

25. (previously presented) The hermetically sealed integrated circuit package of claim 24, wherein the caulking agent is disposed along substantially all of the second inner sidewall.

26. (previously presented) The hermetically sealed integrated circuit package of claim 24, wherein the caulking agent is disposed along substantially all of the second outer sidewall.

27. (previously presented) The hermetically sealed integrated circuit package of claim 24, wherein the caulking agent is disposed along substantially all of the second outer sidewall and the second inner sidewall.

28. (cancelled)

29. (cancelled)

30. (cancelled)
31. (previously presented) The hermetically sealed integrated circuit package of claim 24, wherein the caulking agent comprises multiple layers of caulking material.
32. (previously presented) The hermetically sealed integrated circuit package of claim 24, wherein the bonding agent comprises gold.
33. (previously presented) The hermetically sealed integrated circuit package of claim 24, wherein the caulking agent comprises at least one of an amorphous fluorocarbon polymer, a polyimide material, and a benzocyclobutene-based material.
34. (previously presented) The hermetically sealed integrated circuit package of claim 24, wherein a thickness of the gasket between the first inner sidewall and the first outer sidewall ranges between about 1 micron and about 10 microns.
35. (previously presented) The hermetically sealed integrated circuit package of claim 24, wherein the at least one circuit element comprises at least one of a resonator, a transistor and a connector.
36. (previously presented) The hermetically sealed integrated circuit package of claim 24, wherein the substrate comprises silicon.